

WHAT IS CLAIMED IS:

1. A computer mouse that is worn on a computer user's hand, comprising:

a base, said base having integrally formed strap brackets;

a base attachment means for removably attaching said base to a user's hand;

a computer processing means carried by said base for developing mouse signals for input into a computer;

a mouseball housing attached to said base;

a mouseball supported within said mouseball housing so that said mouseball is capable of rotational movement;

a mouseball motion tracking means carried by said base for developing an electrical signal that corresponds to the rotational movement of said mouseball, said mouseball motion tracking means being in electrical contact with said computer processing means;

a mouse button signal transmitting means connected to said base and in electrical contact with said base and said computer processing means for transmitting electrical signals to said computer processing means and for providing electrical power;

a mouse button finger attaching means connected to said mouse button signal transmitting means for removably attaching mouse buttons to a user;

a mouse button means connected to said mouse button finger attaching means, said mouse button means for providing mouse button function signals to said computer processing means, said mouse button means being in electrical contact with said mouse button signal transmitting means and said computer processing means; and

a mouse signal transmitting means connected to said base and in electrical contact with said computer processing means, said mouse signal transmitting means for transmitting said mouse button function signals and said electrical signals from said mouseball motion tracking means to said computer, and for providing electrical power to said base and said computer processing means.

2. The computer mouse as recited in claim 1, wherein said base attachment means are adjustable straps, said straps are attached to said strap brackets.

3. The computer mouse as recited in claim 1, wherein said mouse button finger attaching means are adjustable fingerstraps.

4. The computer mouse as recited in claim 2, wherein said adjustable straps carry hook and loop fasteners.

5. The computer mouse as recited in claim 3, wherein said adjustable fingerstraps carry hook and loop fasteners.

6. The computer mouse as recited in claim 3, wherein said fingerstraps have a hollow sleeve formed therein.

7. The computer mouse as recited in claim 6, wherein said mouse button signal transmitting means is electrical wiring carried by a fingerstrap connecting cable, said fingerstrap connecting cable running from said fingerstrap to said base.

8. The computer mouse as recited in claim 7, wherein said electrical wiring is carried by said hollow sleeve for providing electrical communications and electrical power between said mouse button means and said computer processing means.

9. The computer mouse as recited in claim 8, further comprising a miniature

mouseball motion tracking means, said miniature mouseball motion tracking means carried by said hollow sleeve of said fingerstrap, said miniature mouseball motion tracking means in electrical communications with said computer processing means.

10. The computer mouse as recited in claim 9, wherein said miniature mouseball
5 motion tracking means further comprises:

a miniature mouseball housing;

a miniature mouseball, said miniature mouseball supported by said miniature mouseball housing so that said miniature mouseball is capable of providing mechanical movement that can be translated into an electrical signal that corresponds to the movement of said miniature mouseball by
10 said miniature mouseball motion tracking means, said miniature mouseball housing attached to said fingerstrap, said miniature mouseball protruding from said hollow sleeve so that it can be operated by said user's thumb; and

wiring, said wiring providing electrical power and communications between said miniature mouseball motion tracking means and said computer processing means.

15 11. The computer mouse as recited in claim 1, wherein said mouse button means are momentary contact switches.

12. The computer mouse as recited in claim 1, wherein said mouse signal transmitting means is a computer connecting cable, for connecting said mouse to said computer.

13. The computer mouse as recited in claim 12, wherein said computer connecting cable
20 has a quick-release connector, said quick-release connector being removably attachable to said base.

14. The computer mouse as recited in claim 1, further comprising a rubber insert, said rubber insert being attached to the top of said base.

15. The computer mouse as recited in claim 1, wherein said mouse signal transmitting means is a wireless interface.

16. The computer mouse as recited in claim 15, wherein said wireless interface further comprises:

5 a wireless transmitter, said wireless transmitter in electrical communications with said computer processing means; and

a wireless receiver, said wireless receiver in electrical communication with said wireless transmitter and with said computer.

10 17. The computer mouse as recited in claim 1, wherein said mouse button finger attaching means further comprises a flexible strip for carrying a mouse button means wiring, a mouse button signal transmitting means wiring, and power wiring.

18. The computer mouse as recited in claim 17, wherein said flexible strip is attached to the exterior surface of a flexible adjustable fingerstrap.

15 19. A computer mouse that is worn on a computer user's hand, comprising:
a base, said base having integrally formed strap brackets;
a base attachment means for removably attaching said base to a user's hand;
a computer processing means carried by said base for developing mouse signals for input into a computer;

20 an optical motion sensor carried by said base for detecting movement of said base, said movement of said base being used for developing an electrical signal by said optical motion sensor that corresponds to the movement of said base, said optical motion sensor being in electrical contact with said computer processing means;

a mouse button signal transmitting means connected to said base and in electrical contact with said base and said computer processing means for transmitting electrical signals to said computer processing means and for providing electrical power;

a mouse button finger attaching means connected to said mouse button signal transmitting means for removably attaching mouse buttons to a user;

a mouse button means connected to said mouse button finger attaching means, said mouse button means for providing mouse button function signals to said computer processing means, said mouse button means being in electrical contact with said mouse button signal transmitting means and said computer processing means; and

a mouse signal transmitting means connected to said base and in electrical contact with said computer processing means, said mouse signal transmitting means for transmitting said mouse button function signals and said electrical signals from said optical motion sensor to a computer, and for providing electrical power to said computer mouse.

20. The method of using a computer mouse for providing mouse signals to a computer, comprising the steps of:

placing a user's hand so that the edge of the palm, below the little finger, is in contact with one side of a base of a computer mouse, said base containing a mouseball on the opposing side;

attaching said base to the user's hand by flexible straps until said mouse base is firmly, yet comfortably, secured to the user's hand;

attaching mouse button carrying fingerstraps to the user's hand so that mouse buttons, and, possibly, a miniature mouseball, can be operated by the user's thumb;

connecting said computer mouse to a computer by connecting a mouse signal transmitting cable from said base to said computer;

placing said computer in operation;

typing on a computer keyboard when not needing a mouse function from said computer mouse; and

transmitting mouse signals to said computer with said computer mouse either by: initiating mouse button functions by depressing the appropriate mouse button on said fingerstraps with a thumb; or initiating cursor positioning either by positioning the hand, on which said computer mouse is being worn, in the "handshake" position and then moving said base mouseball by arm movement, or by rotating said miniature mouseball attached to one of said fingerstraps with a thumb.

21. The method of using a computer mouse for providing mouse signals to a gaming system, comprising the steps of:

placing a user's hand so that the edge of the palm, below the little finger, is in contact with one side of a base of a computer mouse, said base containing a mouseball on the opposing side;

attaching said base to the user's hand by flexible straps until said mouse base is firmly, yet comfortably, secured to the user's hand;

attaching mouse button carrying fingerstraps to the user's hand so that mouse buttons, and, possibly, a miniature mouseball, can be operated by the user's thumb;

connecting said computer mouse to a game device by connecting a mouse signal transmitting cable from said base to said gaming system;

placing said game device in operation; and

transmitting mouse signals to said gaming system with said computer mouse either by:
initiating mouse button functions by depressing the appropriate mouse button on said fingerstraps
with a thumb; or initiating a positioning function either by positioning the hand, on which said
computer mouse is being worn, in the "handshake" position and then moving said base mouseball
5 by arm movement, or by rotating said miniature mouseball attached to one of said fingerstraps with
a thumb.

FD-350 (Rev. 10-1-60)